The Cognitive Science of Religion, Philosophy and Theology

van den Brink, G.; van Eyghen, H.M.R.A.; Peels, R.

published in
New Developments in the Cognitive Science of Religion
2018

DOI (link to publisher)
10.1007%2F978-3-319-90239-5_1

Chapter 1
The Cognitive Science of Religion, Philosophy and Theology: A Survey of the Issues

Hans van Eyghen, Rik Peels, and Gijsbert van den Brink

Abstract Cognitive Science of Religion (CSR) is still a rather young discipline. Depending on what one deems to be the first paper or book in the field, the discipline is now almost forty or almost thirty years old. Philosophical and theological discussion on CSR started in the late 2000s. From its onset, the main focus has been the (potential) epistemic consequences of CSR, and this focus is dominant even today. Some of those involved in the debate discussed the relevance of CSR for further issues in philosophy of religion, and other have examined how CSR weighs in on various theological questions. Finally, a small number of philosophers offered criticisms or support for various CSR-theories. In this chapter, we give an overview of the debates so far and provide an outline of the book.

1.1 Introduction

This volume provides contributions that display the most recent developments both in CSR and in the philosophical reflection on its epistemic and theological consequences. Some of the essays offer an historical overview of the debate until now, others explore CSR's epistemic ramifications, and yet others scrutinize its possible theological consequences. This introduction is structured as follows. First, we sketch the state-of-the-art in various debates elicited by CSR: the debate about religious epistemology (section "CSR and religious epistemology"), the philosophy of religion more broadly (section "CSR and philosophy of religion"), theology (section "CSR and theology"), and various other philosophical issues regarding CSR (section "Philosophers on CSR"). After that, we explain what is at stake in these discussions (Sect. 1.3). Finally, we give an overview of what is ahead (Sect. 1.4).

H. van Eyghen (✉) · R. Peels · G. van den Brink
Vrije Universiteit Amsterdam, Amsterdam, The Netherlands
e-mail: mail@rikpeels.nl; g.vanden.brink@vu.nl

H. van Eyghen et al. (eds.), *New Developments in the Cognitive Science of Religion*, New Approaches to the Scientific Study of Religion 4,
https://doi.org/10.1007/978-3-319-90239-5_1

1.2 State of the Art

CSR and Religious Epistemology

The main body of philosophical literature on CSR addresses the question whether CSR-theories imply a negative verdict on the epistemic standing of religious belief. Richard Dawkins and Daniel Dennett initiated this discussion. Dawkins referred to CSR-theories in order to argue that religious beliefs result from an in-built irrationality mechanism (Dawkins 2007: 184–86). Dennett made similar claims and argued that religious beliefs are brought about by a "fantasy-generation process" (Dennett 2006: 121). Dawkins' and Dennett's rather unelaborated claims triggered a number of papers that defended the epistemic viability of religious belief. For example, Justin Barrett responded by reconstructing possible arguments against theistic belief arising from (among other approaches) CSR-theories and argued that they are unconvincing. One point he made is that many arguments have too much collateral damage if successful, because they do not just discredit religious beliefs but many other ideas that our minds encourage us to believe as well (Barrett 2007). Michael Murray also took up the task of defending the epistemic justification of religious belief over against CSR-based arguments (Murray 2008, 2009). Like Barrett, Murray reconstructs possible arguments against religious belief and attempts to refute them. Murray mainly discusses arguments for the conclusion that religious belief is unreliably formed. He concludes that the arguments either have too much collateral damage or cannot show what they aim to show, viz. that religious belief forming mechanisms are unreliable.

Alvin Plantinga mentions some CSR-theories as a potential source of conflict between science and religion, but argues that the conflict is only superficial because CSR relies on methodological naturalism (Plantinga 2011: chapter 5). In two other papers more specific defenses of the positive epistemic status of religious belief over against CSR-based considerations are made. Kelly James Clark and Danny Rabinowitz reconstruct arguments that rely on CSR-theories for the conclusion that religious belief is "unsafe" and argue that they fail (Clark and Rabinowitz 2011). Joshua Thurow follows a similar strategy. He rebuts self-constructed arguments based on CSR for the conclusion that religious belief is irrational (Thurow 2013).

In 2008, Leo Näreaho wrote a paper that started a discussion on CSR's (alleged) commitment to naturalism. Näreaho argued that CSR shows a strong commitment to "the naturalistic, cognitive-scientific research program" (Näreaho 2008: 84). According to Näreaho this commitment leads CSR to find causal explanations for religious phenomena by basing its claims particularly on the investigations of cognitive science and cognitive psychology (Näreaho 2008). David Leech and Aku Visala responded that CSR is not necessarily committed to naturalism. As a result, on their view, CSR is compatible with theism (Leech and Visala 2011a, b). On a separate occasion, Visala argued at length that CSR need not be wedded to a strictly naturalistic framework and developed an alternative framework that he calls 'broad naturalism' (Visala 2011). Näreaho responded that not all versions of theism are

compatible with what CSR shows. He argues that CSR-theories are not world-view neutral, but rule out forms of theism which hold that God actively intervenes in the world. They do not rule out forms of theism where God is the structuring cause of the universe (Näreaho 2014). In a rejoinder, Leech and Visala deny that CSR-theories are necessarily committed to a "naturalistic, cognitive-scientific research program" which claims that cognition should have its origin strictly in natural processes. They argue that this commitment is merely assumed by CSR-theorists and not implied by empirical evidence (Leech and Visala 2014). In line with Leech and Visala's response, Daniel Lim has suggested that naturalistic explanations of religious belief are of a different kind than personal explanations. Therefore, CSR's commitment to naturalism does not exclude personal explanations with God as the proximate cause of religious belief (Lim 2016).

Two authors moved the focus of the debate and argued that CSR-theories *support* the epistemic status of religious belief rather than *damaging* it. Kelly Clark and Justin Barrett argued that what CSR-theories show fits well with a position known as 'Reformed Epistemology' (Clark and Barrett 2010, 2011).[1] They argue that both CSR-theories and Reformed Epistemology agree that belief in God is formed non-inferentially and immediately by a cognitive faculty. Like Reformed Epistemologists, they add that immediately and non-reflectively formed beliefs merit an innocent-until-proven-guilty status and are thus prima facie justified. Justin Barrett made a similar argument in collaboration with Ian Church (Barrett and Church 2013).

Interestingly, leaving aside non-argumentative suggestions such as those of Dawkins and Dennett, elaborate arguments against the positive epistemic status of religious belief are of a later date than defenses. The best-known argument in this connection was developed by John Wilkins and Paul Griffiths. They argued that the truth of religious beliefs was not important for their evolutionary use. Drawing from CSR-theories, they showed that religious beliefs could have evolved even if they were not true. Since the evolutionary process selects for fitness and not primarily for truth, religious beliefs are not justified (Wilkins and Griffiths 2013). In the same year, Robert Nola offered two arguments. First, in his view CSR-theories show that the belief-forming process for religious beliefs is error-prone. Therefore, religious beliefs lack justification. Second, CSR-theories produce explanations for religious beliefs that outcompete folk-explanations of the origins of religious beliefs. As a result, the folk-ontology of God(s) is eliminated (Nola 2013). Using a slightly different strategy, Liz Goodnick argued that CSR-theories show that the faculties responsible for religious beliefs were selected for by natural selection. Since natural selection is not primarily aimed at truth, these faculties cannot be trusted (Goodnick 2016). The most elaborate argument against the positive epistemic status of religious belief was advanced by Matthew Braddock (Braddock 2016). He claims that the mechanisms responsible for religious beliefs are unreliable because CSR-theories

[1] Reformed Epistemology is an influential line of thought in current religious epistemology. It was first advanced in a collection of papers edited by Alvin Plantinga and Nicholas Wolterstorff (Plantinga and Wolterstorff 1983). Its central claim is that religious belief can be rational without even if it is not based on arguments.

show that they produce many false, polytheistic and finite god-beliefs. He concludes that we are not epistemically justified to hold any god-beliefs. One of the present authors, Hans Van Eyghen, has recently criticized these four arguments (Van Eyghen forthcoming).

Two publications appealed to internal reasons within CSR-theories for holding that they pose no threat to the positive epistemic status of belief in God. Jonathan Jong, Christopher Kavanagh, and Aku Visala argue that CSR-theories do not have theism as their explanandum. They argue that CSR-theories only explain anthropomorphic, idolatrous beliefs. Explanations thereof have no bearing on the epistemic status of theism (Jong, Kavanagh, and Visala 2015). Additionally, James Jones argues that CSR-theories do not offer a full explanation of religious belief. This leaves room for sound religious reasons for belief (Jones 2016).

CSR and Philosophy of Religion

A smaller group of authors discussed other ways in which CSR-theories might have implications for the philosophy of religion. One point of interest here is the relation between CSR and Reformed Epistemology. We already noted that Kelly Clark and Justin Barrett argued for convergence as part of a broader argument in defense of religious belief (Clark and Barrett 2010, 2011). Richard Sagar discussed the impact of CSR on Reformed Epistemology at length and also concludes that they square well (Sagar 2011). Helen de Cruz and Johan de Smedt are more critical here, arguing that while there is some convergence, CSR does not fit well with a central idea in Reformed Epistemology, namely the idea that sin has epistemic consequences (De Cruz and De Smedt 2012).

Paul Draper and Ryan Nichols refer to CSR-theories in order to show that philosophy of religion in general is in rather poor health. They argue that cognitive biases laid bare by CSR-research explain why philosophers of religion are often too partisan (in favor of religious belief) and use poor standards of evaluation (Draper and Nichols 2013). Max Baker Hytch discusses how CSR can weigh in on the problem of epistemic luck[2] in the formation of religious beliefs (Baker-Hytch 2014). Ruth Walker uses CSR-theories to argue for religious non-cognitivism (Walker 2006).[3]

Finally, broaching another classical field in the philosophy of religion, Helen de Cruz and Johan de Smedt discussed the relevance of CSR for the classical debate

[2] The term ‘epistemic luck’ refers to accidental or coincidental factors that lead a subject to hold true beliefs. The term became wide-spread in virtue of Duncan Pritchard’s use of the phrase (Pritchard 2005). Most epistemologists agree that true beliefs that are the result of epistemic luck do not amount to knowledge.

[3] Defenders of religious non-cognitivism claim that religious claims do not have truth-value. Instead they are concerned with the sphere of human conduct and experience. Among the more influential defenders of religious non-cognitivism are D.Z. Philips and Don Cupitt.

on theistic arguments (for a survey of this debate, see e.g. Peterson et al. 2013, Ch. 5). They survey five natural theological arguments for the existence of God and discuss how various cognitive mechanisms could make the arguments sound plausible. They conclude that CSR does not render the arguments unconvincing but that it does leave room for rational disagreement on their force (De Cruz and De Smedt 2015).

CSR and Theology

Another area where CSR is obviously of interest is systematic theology. According to John Teehan, CSR-theories force a radical change in how theology should speak about God. The main reason is that CSR shows that religious belief was in an important way shaped by natural selection and natural selection involves a great deal of evil (Teehan 2010). F. Leron Schults also proposed a radical reconceptualization of theology based on CSR, but a different one. According to him, CSR suggests an a-theology in line with the 'theology of the death of God' of the 1960s (Shults 2014).[4] One of the present authors, Gijsbert van den Brink, takes a less radical approach. He investigates the relation of CSR to revelation and argues that CSR need not undercut traditional Jewish-Christian claims that religion ultimately anchors in divine revelation (Van den Brink forthcoming: chapter 8). Adam Green argued that CSR shows that natural knowledge of God is shaped by social influences (Green 2013). Taede Smedes has pointed out that findings from CSR square well with Emil Brunner's theological view on the *imago Dei* (Smedes 2014).

A small body of literature developed in response to *Why Religion is Natural and Science is Not* by Robert McCauley (McCauley 2011). In this book, McCauley argued that theological beliefs (like belief in an omniscient God) are far removed from beliefs people commonly have. He theorized that various cognitive mechanisms quite naturally produce anthropomorphic and other theologically incorrect beliefs whereas holding theologically correct beliefs requires a great deal of cognitive effort. Olli-Pekka Vainio accepts McCauley's thesis and regards it as a vindication of theological beliefs (Vainio 2016). In response to McCauley, Helen de Cruz argued that theological concepts are not far removed from ordinary religious concepts produced by cognitive mechanisms (De Cruz 2014). Justin Barrett took an intermediate position, arguing that some theologically correct Christian beliefs fit well with ordinary beliefs while others diverge (Barrett 2012).

[4] The Death-of-God Theology was a movement in Christian theology in the 1950s and 1960s. It claimed that either God had ceased to exist or God's existence could no longer be experienced. Its adherents tried to formulate radically non-transcendent ways of reading the gospel in what came to be called 'Christian atheism'; for a brief critical introduction, see e.g. (Miller and Grenz 1998: 79–86).

Philosophers on CSR

Being a discipline in which the definition of concepts plays an important role and having a diverse explanandum, CSR raised philosophical interest in its internal practice. Steven Horst discussed the use of the terms 'intuitive' and 'counterintuitive' in various CSR-theories (Horst 2013). David Nikkel laments the focus of CSR-theories on dualistic, disembodied religious concepts. He argues that many religious concepts do not fit this picture and he calls for a new way of doing research in CSR (Nikkel 2015). James van Slyke also made a plea for a broader framework in CSR. He highlights the importance of emergence as an alternative to the reductive framework CSR (allegedly) knows (Van Slyke 2011). Lluis Oviedo called for a broader framework for CSR as well (Oviedo 2008). Based on findings in CSR-research, Neil van Leeuwen made a plea for conceptualizing religious beliefs as 'credences' rather than beliefs (Van Leeuwen 2017). Credences differ from beliefs because they are not (or less) responsive to evidence and are more dependent on practical settings.

Some philosophers criticized or supported theories in CSR. This usually happens in collaboration with scientists. Michael Murray criticized two CSR-theories. In collaboration with Lyn Moore he criticized the costly signaling theory. This theory states that religious rituals evolved as a way of signaling honesty to members of one's group. Moore and Murray argue that signaling honesty through rituals is not an evolutionary stable trait. They add that the theory suffers from too many internal problems to give a good account of why religious rituals evolved (Murray and Moore 2009). In collaboration with Jeffrey Schloss, Murray also criticized the supernatural punishment theory. That theory states that religious beliefs evolved because the idea that there is a god who monitors and cares about human behavior and will punish or reward people according to their behavior fostered cooperation. Schloss and Murray argue that the theory is not in as bad a shape as the costly signaling theory but still needs improvement (Schloss and Murray 2011). Kelly Clark does not criticize but offers support for the supernatural punishment theory. In collaboration with Justin Winslett, he surveys evidence for the occurrence of belief in punishing gods in ancient China. Both argue that the prevalence of this belief adds support for the supernatural punishment theory (Clark and Winslett 2011).

1.3 What Is at Stake?

What is at stake in the debate on the philosophical (epistemic, etc.) ramifications of CSR can perhaps best be elucidated by pointing out how the debate on the significance of CSR would continue *without* sufficient philosophical reflection. What we often see in such cases is that argumentative shortcuts are made and people jump to conclusions that cannot stand the test of careful scrutiny. For example, scholars with an atheist background can be quick to derive atheist conclusions from CSR, thus supposedly undergirding their personal view of life in a scientific way. In particular, it is often suggested that since we now know about the natural ways in which

religious beliefs came into existence, it is clear that such beliefs are illusory. Indeed, at the moment this kind of rhetoric (sometimes taking its cue from the comments of Dawkins and Dennett with which we started our survey) is nowadays quite common in academic circles. From sentences such as "Religious belief is produced by "normal" cognitive structures. Religious thought is an unintended byproduct of cognitive modules (mechanisms or networks) that emerged through natural selection owing to their ability to solve important adaptive tasks" it is tacitly concluded that this is all there is to say about the causes of belief in God.[5]

Religious believers, on the other hand, are sometimes quick to point out that this is a *non sequitur* and to leave it at that. They are right that such rhetorical framings of the issue hide a sloppy way of thinking. For even if CSR does enable us to establish beyond any reasonable doubt the evolutionary and cognitive pathways along which religious beliefs arose (which is not, or at least not yet, the case), it does not and by definition cannot exclude the possibility that God arranged for these pathways in the first place in order to get people to know him in the long run. Like in so many other cases, science just elucidates 'how God did the job' – which is interesting, but hardly a fatal blow to religion. Thus, it is only when naturalism is tacitly presupposed that the naturalist conclusion from CSR becomes inescapable.

This approach, however, equally suffers from a lack of philosophical acumen. For even when CSR-theories do not work as a 'defeating defeaters' of religious belief, they may still operate as an 'undercutting defeaters'. That is, even though they do not rebut all or any religious belief claims, they may change the reasons believers have for holding them. If you always thought you believed in God because you experienced God's presence or had other good reasons for doing so, and it is then pointed out to you that as a matter of fact belief in God is fostered by evolved cognitive mechanisms operating in your brain, then you may have a problem. To be sure, the problem need not be irresolvable, but it is still a problem that should be given careful philosophical (and perhaps theological) attention. It is exactly here that the present volume comes in.

Meanwhile, the overview of philosophical and theological debates about CSR given above shows that many of these debates are far from settled. New developments within CSR may make reassessments of certain claims made in the literature necessary. Our book aims to contribute to such reassessments, to advance existing discussions and initiate new inquiries. Some papers continue the discussion about the epistemic impact of CSR-theories, others discuss or criticize the current state of CSR, and still others aim to improve CSR-theorizing. While many earlier assessments of the epistemic impact of CSR-theories relied on a small number of them or did not discuss the theories in great detail, some of the papers in the book offer a more profound discussion of the theories. In this way, a better assessment is possible.

[5] The quote is from the handout of a paper given at our university (Vrije Universiteit Amsterdam) by the American historian and psychologist of religion Robert C. Fuller entitled "Religion is Nonsense. Cognitive Science and the Biological Substrates of Religion" (March 19, 2018).

The book also shows that philosophy has a lot to offer to CSR. Rather than dismissing CSR or doing armchair philosophy, the contributions show that philosophy and CSR can collaborate fruitfully and help each other to move forward. Though some contributions are critical of the current state of CSR, they also make suggestions for improvement. Finally, the contributions show that philosophy of religion should be mindful of developments in CSR. This not only holds for discussions about the rationality of religious belief but also for broader issues. CSR has grown to be a major player in the field of religious studies that can no longer be neglected by mainstream philosophy of religion.

1.4 Overview of the Book

The book sets out with two essays that provide an overview and discussion of *the current state of art* in CSR and how we have come to reach that state of art, one by Lluis Oviedo and one by Claire White.

In order to offer a critical assessment of contemporary CSR, Oviedo reviews the development and current state reached by that approach to the study of religion. In his opinion the time is ripe for summing up what has been achieved in that endeavour, and what deserves a more accurate scrutiny to discern its limits and to give advice about possibly needed corrections. In that sense, criticism points first to problems with the theoretical frameworks that inspired and provided a foundation for CSR. It has come to be broadly assumed that cognitive science has moved quite fast from the models proposed in the nineties, arguing for some revision of the previous applications built on that 'platform'. This limit arises in a similar way regarding evolutionary studies, and hence to its application to the study of religion. Indeed, multilevel theories take the place of formerly dominant reductive approaches. The second point concerns the amount of empirical evidence that CSR can exhibit. This is an open question after the recent available research showing a plurality of outcomes, which discourages any straightforward understanding of the proposed theories.

Over the past 15 years or so, the number of empirical projects in CSR has grown exponentially and so too has the amount of attention paid to the field, including questions about what CSR is, how it conceptualizes religion, and what it explains. The aim of White's chapter is to contribute to these discussions by outlining the main objectives of CSR and the assumptions underlying the field. In particular, CSR has often been criticized for not engaging in extensive debates about what religion is. In this chapter, White focuses mainly on how CSR scholars construe religion and why they have eschewed these definitional debates in favor of engaging in empirical research. After that, she discusses how CSR conceptualizes religion, and how this differs from other approaches. Next, she considers how this conceptualization of religion shapes how scholars study it. Finally, she considers the question of how CSR actually explains religion.

The next two essays, by Aku Visala and Robert Nola, both deal with the role of *naturalism* and *naturalistic explanation* in contemporary CSR.

The cognitive-evolutionary study of religion takes itself as "naturalizing" not only the study of religion, but the humanities as a whole as well. According to Visala, apart from the obvious denial of non-supernatural causal factors, it is sometimes difficult to see whether this naturalization involves anything more than a general rhetorical strategy meant to play up the "science" part (and downplay other, "non-scientific" approaches). In his paper, Visala seeks to identify the basic philosophical assumptions of the naturalization project, present some critical points about them, and suggest what he considers to be more plausible assumptions instead. The basic assumptions of the naturalization project include a commitment to a specific kind of unity of science, a commitment to a certain kind of inter-level reduction and explanatory fundamentalism, and a deep suspicion towards causal factors above the cognitive/psychological level. He suggests that these commitments suffer from a number of problems and that the goals of the cognitive-evolutionary study can be achieved just as well, or even better, by adopting weaker and more plausible commitments. Here, he briefly discusses some new accounts of mechanistic explanation, Robert McCauley's model of inter- and intra-level relationships and the idea of explanatory pluralism. He conjectures that loosening the "naturalistic" constraints of the cognitive-evolutionary study of religion might result in a more pluralistic (but nevertheless strict) approach to religion.

In his chapter, Nola contrasts naturalistic with supernaturalistic explanations of religious belief. He argues that there are two broad rival explanations for religious belief. The first, the common "folk" or religious explanation, is supernaturalistic in that it invokes a deity as a central causal factor in the etiology of people's belief in the existence of God. The second is naturalistic in that it eschews any appeal to a deity in the explanation of a person's belief in God and instead invokes only naturalistic factors in the causal etiology of such beliefs. In his paper, Nola addresses two questions. The first question is how well supported by the evidence these naturalistic theories are. The second question is how we might compare some naturalistic explanations with a non-naturalistic "folk" explanation. One way in which naturalistic and non-naturalistic theories can be compared with one another is much the same as one might compare rival theories in science, though other considerations might come into play. Here a number of criteria can be invoked, such as ontological parsimony (other things being equal, prefer the theory which postulates fewer entities than another which postulates more) and evidential strength (other things being equal, prefer the evidentially stronger theory). On criteria such as these, Nola argues that naturalistic explanations of religious belief have the edge over non-naturalistic "folk' explanations. Once this is granted, it can be seen why many in the history of philosophy have claimed that naturalistic explanations of religious belief lead to the debunking of religion; religious "folk" theories have the wrong causal etiology for religious belief in the existence of a deity.

The next three essays explore *three specific issues* in current CSR: the debate about adaptationism versus cognitivism, the explanation for what might be considered to be silly beliefs, and the nature of supernatural beliefs as regress-stoppers.

Religious beliefs can be explained in at least two different ways, cognitive and adaptationist. Each of them is a different kind of explanation, one is proximate and

the other ultimate. Each of them provides the other with a specific status for religious beliefs, such as being a by-product or being an adaptation. However, there is no clarity as to how cognition itself could be religiously biased and how the religious/theistic approach could work as a default cognitive mode, as CSR suggests. In his paper, Konrad Scozik criticizes cognitive assumptions in the study of religion and shows how adaptationist accounts are preferable. He specifically focuses on the functional context of religious components, the social and psychological applications. He makes suggestions as to how discussing a cognitive basis does not matter in these fields and argues that the cognitive account cannot explain the ubiquity of religious components that lie in their function, rather than the alleged connection with cognition.

In his paper, John Wilkins focuses on beliefs that might be called *silly*. People – and not only religious people – often have beliefs that are widely regarded as silly by the experts or by the general population. This leads us to ask why believers believe silly things if they are widely thought to be silly, and then why believers believe the specific things they do. Wilkins proposes that silly beliefs function as in-group and out-group tribal markers. Such markers act as an honest costly signal. They are honest and costly because such beliefs are hard to fake. Then he offers a developmentalist account of belief formation, in which beliefs are thought to be the result of a process of acquiring beliefs as cheaply and effectively as possible, leading to a reluctance to abandon early core beliefs later in life. Then he considers whether beliefs can even form a unified worldview, and asks how conversion occurs within the developmental characterization he proposes. Finally, he considers how this may play out in terms of crises of faith.

In his chapter, Paolo Mantovani addresses the question of what the role of explanation is in shaping and sustaining religious beliefs, if it indeed has any such role. CSR has been generally dismissive of so-called 'intellectualist' approaches to religion emphasizing the explanatory role of religious beliefs. Here, he argues, first, that some of the arguments against intellectualism found in the CSR literature are overstated and that some 'minimally intellectualist' propositions concerning religion are not only compatible with CSR, but are indeed implied by some of its core, 'foundational' theories. Second, he looks at ultimate explanations of origins, arguing that, with respect to the latter, explanations appealing to the will and actions of minded agents have an intuitive advantage over other kinds of explanations, and that, again, this follows from core CSR theories. Gods, he argues, are better *regress-blockers* than, say, inanimate causes, and this follows from the deeply rooted intuitions about basic ontological kinds that CSR theorizes about.

The final three contributions to this book, namely those by Justin McBrayer, Matthew Braddock, and ourselves all scrutinize what the *epistemic ramifications* of CSR are. In other words, how does empirical research from CSR bear on the positive or negative epistemic status of supernatural beliefs? McBrayer and Braddock explore the status of supernatural belief *in general*, whereas we focus on a *specific* belief that is important to the great monotheistic traditions, namely the belief that sin or evil has had certain cognitive consequences.

As McBrayer rightly notes, beliefs have genealogies. In his paper, he explores whether tracing a belief's genealogy can illuminate the epistemic quality of the belief. The paper sets out by sketching a general epistemology of genealogies. As it turns out, genealogies for beliefs come in two sorts: those that trace a belief to some mental event that doubles as evidence for the belief and those that do not. The former have the potential to undercut the belief, rebut the belief, or, importantly, both. The latter have the potential to reinforce the belief or rebut the belief but, importantly, not undercut it. The ultimate conclusion is that there is a role for genealogies in the epistemic appraisal of our beliefs, but that this role will be circumscribed by the availability of clear and compelling genealogies.

In contrast to his earlier work (see above section 2.1), Matthew Braddock gives what he calls an 'evidential argument' from CSR for theism, that is, the thesis that there is God. As he rightly notes, the lion's share of the discussion about the ramifications of CSR fixates on whether CSR undermines (or debunks or explains away) theistic belief. There has been very little attention for the issue of whether the field could offer positive support for theism. In his contribution Braddock explores how CSR could offer such positive support. His answer to this question takes the form of an evidential argument for theism from standard models and research in the field. According to CSR, we are naturally disposed to believe in supernatural agents and these beliefs are constrained in certain ways. The three main theories of this supernatural disposition are byproduct theories, adaptationist theories, and hybrid theories. Braddock argues that our supernatural disposition – as understood by any of the main theories – is surprising and improbable given naturalism but less so given theism and, hence, serves as evidence for theism over naturalism.

In our own contribution to this volume, we explore how CSR relates to a core idea, important in mainstream Christianity and Reformed Epistemology, namely that sin and evil have certain cognitive consequences. In particular, sin is believed to have diminished and distorted human knowledge *of God*. This is important, for, recently, Helen de Cruz and Johan de Smedt have suggested that some CSR theories are in tension with the notion that sin has diminished and distorted our human knowledge of God. According to them, it is problematic to claim that certain evolutionary explanations are correct *and* that sin has such cognitive consequences. After some terminological clarifications we spell out in detail the argument developed by De Smedt and De Cruz against a historic Fall. Next, we pause a moment in order to ponder exactly what is at stake here. Subsequently, we discuss three possible solutions of how evolutionary explanations of religious belief can be wedded to a historic account of the Fall. We conclude that there is no tension between CSR on the one hand, and the ideas that human beings have fallen into sin and that that has had devastating cognitive consequences on the other.[6]

[6]This publication was made possible through the support of a grant from the Templeton World Charity Foundation. The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the Templeton World Charity Foundation.

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Dr. Hans van Eyghen, MA finished his Ph.D. thesis *Arguing from Cognitive Science of Religion. Cognitive Science of Religion and its Epistemic Implications* at the Vrije Universiteit Amsterdam (June 2018).

Dr. Rik Peels is a Assistant Professor at the Vrije Universiteit Amsterdam (the Netherlands). His main research interests are the ethics of belief, ignorance, scientism, and various issues in the philosophy of religion. He published about these topics in journals such as *American Philosophical Quarterly*, *Australasian Journal of Philosophy*, *Journal of Philosophy*, *Philosophical Quarterly*, *Philosophical Studies*, *Philosophy and Phenomenological Research*, and *Synthese*. He is the author of *Responsible Belief: A Theory in Ethics and Epistemology* (New York: Oxford University Press, 2017), editor of *Perspectives on Ignorance from Moral and Social Philosophy* (London: Routledge, 2017), and coeditor of *The Epistemic Dimensions of Ignorance* (Cambridge: Cambridge University Press, 2016) and *Scientism: Prospects and Problems* (New York: Oxford University Press, 2018).

Prof. Dr. Gijsbert van den Brink holds the University Research Chair for Theology and Science at the Vrije Universiteit Amsterdam. His current research focuses on the impact of evolutionary theory (including theories of cultural evolution) on theological doctrines and, secondly, on theology as an academic discipline. He published in journals such as *International Journal for the Philosophy of Religion*, *International Journal of Systematic Theology*, *Neue Zeitschrift für Systematische Theologie und Religionsphilophie*, *Philo*, and *Ars Disputandi*. He is the author of *Almighty God. A Study of the Doctrine of Divine Omnipotence* (Kampen 1996[2]), *Oriëntatie in de Filosofie* (Zoetermeer 2000), *Philosophy of Science for Theologians* (Frankfurt 2009), *Christian Dogmatics* (coauthored with Cornelis van der Kooi; Grand Rapids 2017), and *Reformed Theology & Evolutionary Theory* (Grand Rapids forthcoming).